

Mac computer configurations & OS X optimizations

(Updated: November 2012)

A fast processor and a good amount of memory are important, but do not necessarily guarantee that a computer will perform well when using audio/DJ applications, which can be very demanding.

This document will cover many changes and modifications that can be applied to your computer to improve performances, and hopefully provide a more satisfying experience when using your Hercules DJ Console.

The following aspects will be covered:

- [USB ports](#)
- [Power Management](#)
- [Drives and partitions](#)
- [Network and security](#)
- [OS X performance improvements](#)

Please note:

This guide assumes that you have a working knowledge of OS X, and sufficient privileges to make changes to the computer you are trying to use. Most changes proposed here are easy enough to be performed by anyone, using tools included in the operating system:

- **System Preferences** (**Apple** menu > **System Preferences**)
- Various programs found under **Application > Utilities**

If you have any doubts about your capacities to perform these changes, please ask for help to a qualified computer user or technician.



USB ports

Some USB ports can share resources with other internal computer components (webcam, card reader, etc) and may not be provided with the same amount of power. This can create problems such as audio interrupts and/or dropped samples.

Try using different USB ports on your computer until you find the one that works best for your console.

Regarding USB hubs

Ideally, your audio interface should be connected directly to the computer while all other USB devices would be connected to the hub. However, if this is not possible, first make sure your Hercules DJ Console works as expected when connected directly to the computer's USB port. Then, test using a good quality powered USB hub.

It is also preferable **NOT** to use a USB hub while performing a Firmware update.

Another thing to keep in mind is that when connecting multiple devices to the same hub (such as external hard drives), they all have to share the USB port's bandwidth. This means that it is more likely to run into problems when the bandwidth limit of the USB port is reached.

Regarding USB 3.0

Recent Mac computers now exclusively include USB 3.0 ports. To insure your DJ Console can function properly, be sure to first install the latest OS X update, as well as the most recent DJ drivers available from the [Hercules support site](#)



Power Management

Macbook are designed to use as little power as possible. However, when it comes to audio applications, it is then preferable to use the power supply and to configure your laptop to behave as a normal desktop computer:

Open **System Preferences > Energy Saver**:

- Uncheck **Automatic graphic switching**.
- Under **Power Supply**, for both **Computer sleep** and **Display sleep**, drag the slider to **Never**.
- Also be sure to uncheck **Put the hard disk(s) to sleep when possible**.

Drives and partitions

a) It is usually recommended to have multiple hard drives when working with audio and video, one affected to the operating system and software, while other(s) used for the files being played or recorded, and storage/backup.

If this is not possible, creating multiple partitions on the same hard drive is the next suitable solutions, which can provide similar results. Hard drives can be partitioned easily using **Disk Utility (Application > Utilities)**. Consult the help file for more details.

When using a USB external drives, please refer to the [USB recommendations](#) previously mentioned.

b) You can also use **Disk Utility** to perform a regular maintenance procedure which can ensure audio and MIDI work properly.

- Select your hard drive from the list.
- From the **First Aid** tab, click **Repair Disk Permission**



c) Disabling Spotlight Indexing

Although it can be very useful for finding files on your computer, Spotlight can be processor hungry or cause your hard driver to work constantly, which will have an impact on audio rendering. Disabling this will allow the drive to function more efficiently:

- From **System Preferences** open **Spotlight**
- Click on the **Privacy** tab.

Follow the instructions to add all drives being used (internal and external) to the list.

[Networks and security](#)

Ideally, your computer should be dedicated for DJ performance, and as such, wouldn't need to connect to the Internet. Under these circumstances, antivirus, firewall and similar protection software should not be installed, as they can create problems during audio playback by constantly scanning the hard drives.

However, if you also use your computer for Internet and obviously require protection software to be present, be sure to follow the following steps before a performance:

- Disable your all protections programs (Antivirus, Firewall, etc)
- Disable all communications software (iChat, Skype, etc)
- Close all download applications (Torrents, etc)

Open **System Preferences > Network**.

- From the left column, select Wi-Fi
- Using the configuration menu on the right, disable or turn off the device
- Click **Disable Wi-Fi**

It is also important to turn off any network connections (Ethernet, Firewire) to prevent possible interferences.

Still in **System Preferences** open **Bluetooth**

- Insure Bluetooth is **Turned Off**.

Finally, proceed to **Sharing** and uncheck **all sharing Services**



OS X performance improvements

Following are simple modifications that can be made to OS X to improve the performance of the operations system, and consequently, how applications will perform.

a) Close all unnecessary applications

Running any other programs at the same time as you audio application will use precious processor and memory resources.

b) Log off Additional Users

If you have set up multiple user accounts on your computer, make sure your user account is the only one logged in by logging off any additional users.

c) Dashboard

With OS X 10.4, Apple introduced **Dashboard**, an application that gives access to various utilities (called Widgets). Unfortunately, a lot of memory is required to run this application. Dashboard can however be disabled easily using **Terminal (Application > Utilities)**

- Open **Terminal**, and then type this command, followed by the Return key:

defaults write com.apple.dashboard mcx-disabled -boolean YES

- For the changes to take effect, you need to restart the Dock. The easiest way to do that is to type this command into **Terminal** (and press Return when done):

killall Dock

If you need or want to restart Dashboard, simply enter this command in **Terminal**

defaults write com.apple.dashboard mcx-disabled -boolean NO

d) Graphical enhancements

Some of MAC OS visual options may interfere with the operation of your audio software:

1- Make the Desktop Static

- Open **System Preferences > Desktop & Screen Saver**.
- Choose the **Desktop** tab.
- Choose an image for your background,
- Uncheck **Change Picture**.



2- Turn off the Screen Saver

- Still in **Desktop & Screen Saver**, choose the **Screen Saver** tab.
- Set **Start Screen Saver** to **Never**.

3- Lock the Dock

- In **System Preferences** > open **Dock**.
- From the menu **Minimizing Using**, select **Scale Effect**.
- Uncheck **Animate opening applications** and **Automatically hide and show the Dock**.

